Activity: **5.6**
Build Logical Model

Responsibility: Project Team Analysts

Description: The logical model defines the flow of data through the software system and determines a logically consistent structure for the software. Each module that defines a function is identified, interfaces between modules are established, and design constraints and limitations are described. The focus of the logical model is on the real-world problem or need to be solved by the software product.

A logical model has the following characteristics:

- Describes the final sources and destinations of data and control flows crossing the system boundary rather than intermediate handlers of the flows.
- Describes the net transfer of data across the system boundary rather than the details of the data transfer.
- Provides for data stores only when required by an externally imposed time delay.

When building a logical model, the organization of the model should follow the natural organization of the software product's subject matter. The names given to the components of the model should be specific. The connections among the components of the model should be as simple as possible.

Work Product: The logical model should be documented in user terminology and contain sufficient detail to obtain the system owner's and users' understanding and approval. Use data flow diagrams to show the levels of detail necessary to reach a clear, complete picture of the software product processes, data flow, and data stores.

Maintain the logical model and data flow diagrams for incorporation into the Functional Design Document. Place a copy of the logical model and data flow diagrams in the Project File. Keep the logical model and diagrams up-to-date. They will serve as a resource for planning enhancements during the Maintenance Stage, particularly for enhancements involving new functions.

Review Process: Schedule a structured walkthrough to verify that the logical model is correct, logical, and complete.